

Processing Instruction and Dictogloss: Researching Differential Effects of Two Modes of Instruction on Learners' Acquisition of Causatives

Mansoor Fahim

Faculty of Persian Literature and Foreign Languages, Allameh Tabataba'i University
 Chamran Highway, Modiriāt Bridge, Tehran, Iran
 E-mail: drfahim@yahoo.com

Hessameddin Ghanbar (Corresponding author)

Faculty of Persian Literature and Foreign Languages, Allameh Tabataba'i University
 Chamran Highway, Modiriāt Bridge, Tehran, Iran
 E-mail: Hessam.ghanbar@gmail.com

Abstract

This study investigates differential effects of two form-focused instructional techniques: Processing instruction and dictogloss. To do so, 56 Iranian intermediate adult EFL learners were randomly selected and assigned to two groups of 28. Processing instruction group (PI) received processing instruction, an input-based instruction, in terms of (1) metalinguistic instruction directed at introducing the causative forms explicitly and succinctly; (2) working on the counterproductive and inefficient input processing strategy and (3) structured input activities. In the second group dictogloss task (DG), an output-oriented task, was implemented in which students acquired causatives by reconstruction two stories collaboratively. T-tests' results indicated that in the interpretive part of the immediate posttest (DG) group outperformed (PI) group but in the delayed posttest, four weeks after the instruction, (PI) group outperformed (DG) group. In the production parts of both immediate and delayed posttests, (DG) group outperformed (PI) group. It can be said that care must be taken in order to accept the potential benefits of PI on interpretation of grammatical structures. Besides, output oriented tasks can be beneficial both for interpretation and production of some target structures.

Keywords: Processing instruction, Dictogloss, Input oriented instruction

1. Introduction

The beneficial effects of focus on form in second language acquisition have been vastly emphasized for more than two decades. Several systematic review articles have indicated that generally this instructional technique would smooth the progress of learners' interlanguage development regarding morpho-syntactic forms (Ellis, 2002; Norris & Ortega, 2002). Spada (2010) stated that current research regarding pedagogical effectiveness of form-focused instruction techniques is towards taking into account the choice of linguistic form, its explicitness or implicitness and its modality. There is a debate regarding the effectiveness of two modes of form-focused instruction. This is manifested in several studies investigating input-based instructions like processing instruction (VanPatten, 1993, 1996, 2002a, 2002b, 2002c, 2003, 2008; VanPatten & Uludag, 2011) and those which examined effects of output-based approaches such as traditional grammar instruction (Cadierno, 1995; VanPatten & Sanz, 1995).

One of the ardently disputed issues in SLA is the role played by input and output practice. The important point is that how input can be better manipulated and transferred to intake. Erlam (2003) reviewed eight papers examining the differential effects of various input and output-based instruction techniques. She ended with this remark that there is no significant difference between these two *modus operandi* in that both have seemed to be similar regarding learners performance in different input-oriented and output oriented activities. According to VanPatten (2004, 2012) default input processing strategies hinder students from attending to input effectively or processing it. Processing instruction (PI) can be defined as a psycholinguistic and input-based approach to grammar instruction grounded on VanPatten's input processing model. In his model, VanPatten (1996) stated that learners can be made aware of inefficient processing strategies and this helps them to internalize what they processed. Wong (2004a) argued that PI pushed the learners to stop using unproductive processing strategies so that they can better achieve form-function mappings by using more effective strategies. VanPatten & Borst (2012) assert that PI is effective regarding changing learners' interlanguage development, in turn; this affects output they produce which cannot be achieved by any types of output-pushing instruction. VanPatten has often signposted a strategic role for input in second language acquisition and consequently holds a less primary role for output.

There is a widespread debate vis-à-vis the differential effects of PI, traditional output based instruction (TI) and meaning based output instruction (MOI) in SLA. TI can be defined by VanPatten (2002a) as

“explanation plus output practice that move learners from the mechanical to communicative drills”. MOI is operationalized by Lee and VanPatten (1995: 121) as “instruction in which learners are asked to be engaged in activities which compel them to exchange formerly unknown information”. To address this debate several studies have investigated differential effects of PI, TI and MOI (Benati, 2000, 2001, 2005; Cadierno, 1995; Farley, 2001, 2004; VanPatten, 2002b; Lee & VanPatten, 1995; Lee, 2004, Wong, 2004a). In spite of this colossal literature regarding the effectiveness of PI, in comparison with other types of instructions, no conclusive result can be come into view. Farley (2001) illustrated that PI is more effective compared to MOI which is in line with what was shown by Benati (2005). On the other hand, Farley (2004) argued that PI and MOI were not significantly different. Benati (2001) and Wong (2004a) implemented the replication of Cadierno’s (1995) study and they found that group who received PI outperformed TI’s group, albeit TI showed some advances in comparison with the control group. VanPatten (2002a) put on the view that there was no difference regarding the effectiveness of PI and MOI.

Cheng (2002) studied the effect of PI and traditional instruction with regard to acquisition of the Spanish copula verbs *ser* and *estar*. Three groups of learners participated in the study: group one who received TI (explicit grammar instruction along with production practices); group two who were provided with PI; and a control. To measure the effects of treatments, three kinds of tasks were utilized: an oral interpretation task, a sentence production task, and a guided composition task. The results revealed that the groups that were given processing instruction and traditional instruction overtook the control group on all three measurement tasks, but there was no significant difference between the traditional instruction group and PI group on any of the post-tests. Accordingly, these results also differ from those reported by VanPatten and Cadierno (1993), which indicated that processing instruction had superior effects contrasted with traditional instruction in aiding learners to interpret the target structure.

Toth (2006) asserted that engaging learners in output-based tasks was more beneficial than providing them with PI. Output also encouraged mental processes such as metalinguistic analysis of language forms, which was completely pole apart the processes in input processing. Erlam (2003), in line with Toth (2006) stated that using measures of both listening comprehension and written production has greater effects for output-based instruction than input-based instruction.

The results of the a aforementioned studies have revealed that in situations when PI is put side by side with TI and MOI in which the number of meaning-focused activities is on the rise, contradictory outcomes are found. All things considered, the core body of research scrutinizing the effectiveness of PI has illustrated that this type of instruction is unswervingly better than TI regarding different structures. The point which is not agreed upon in SLA is that can this conclusion be made regarding MOI? It should be stressed that the effectiveness of processing instruction may be influenced by linguistic structure, the length of treatment, learners’ proficiency level and different L1s.

Instead of following the similar strand of research of different studies which were mentioned above, this study pushes the methodological boundaries of PI studies, that is, instead of comparing effectiveness of PI and MOI, which has been investigated extensively so far, a new type of form-focused technique is used: Dictogloss.

Myriad of collaborative output tasks for L2 classrooms exist which push the learners to produce output and also encourage discussion of language forms. Dictogloss (Wajnryb, 1990) is such a task that has been popularized in the current line of research with a discourse-oriented nature. It is a kind of output pushing task that requires students to collaboratively reconstruct a text which is read for them orally by the teacher. Wajnryb (1990) stated that this instructional technique draw learners’ attention to the function of the grammar at the discourse level. The dual aims of the dictogloss are to both push the learners to produce output and to stimulate negotiation of form and meaning. Swain’s (1985) output hypothesis puts on the view that by producing comprehensible output, learners can internalize target forms. Wajnryb (1990) identified four stages for dictogloss: a) the preparatory stage, b) the dictation stage, c) the reconstruction stage and d) the analysis and correction stage. In the reconstruction stage, the students make hypothesis about the target language form and in the analysis and correction stage the students are exposed to the target language model, during which they compare what they produced with the original text. While they are engaging in this process, they notice the gap (Schmidt, 1995) which in the Ellis’ (1995) term is cognitive comparison, which can be defined as a moment in which the learners perceive the gaps in their interlanguages and fill them after they are exposed to the target language model.

As was mentioned above, both PI and dictogloss task (DG) are well theoretically established form-focused techniques. They are analogous in that both push the learners to notice target language features in a meaningful context and they are principally poled apart with regard to the mode of instruction. This study is unique among PI studies, since it is directed at comparing differential effects of PI and the DG which have rarely been used in any former studies (Shak & Gardner, 2008). Besides, it should be pointed out that most of studies so far have investigated the effects of PI on Spanish grammatical features (past tense or object pronoun), or

French (e.g. causative structures). Few studies have been done apropos PI's effects on EFL learners (Benati, 2005). With regard to the target structure under the investigation, Lee (2004) rightly argued that there is a gap in literature on the effects of PI on a completely new grammatical structure and if there exist, they were implemented in the university level and there is a paucity of studies on this issue in the field of second language teaching on the intermediate level (Birjandi & Rahimi, 2009; Birjandi, Maftoon and Rahimi, 2011).

According to Benati (2005) current trend of PI needs more studies which investigate the effects of PI and other output based techniques which in this study is DG. Taken together, current study aims at investigating the differential effects of PI and DG on adult intermediate learners' acquisition of causative verbs, with respect to both comprehension and production. This study aims at answering four research questions:

- 1-Is there any significant difference between PI and DG concerning helping learners comprehend causative construction in the immediate posttest?
- 2-Is there any significant difference between PI and DG concerning helping learners comprehend causative construction in the delayed posttest over time?
- 3-Is there any significant difference between PI and DG concerning helping learners produce causative construction in the immediate posttest?
- 4- Is there any significant difference between PI and DG concerning helping learners produce causative construction in the delayed posttest over time?

2. Participants

This study was conducted at Iran Mehr language institute in Tehran, Iran. A total of 56 high intermediate adult EFL learners were randomly selected and split into two groups: PI group ($n = 28$) and DT group($n = 28$) whose ages ranged from 18 to 35 with the mean of 24. Participants designated to both groups were studying English and did not have any pervious knowledge of the targeted grammatical structure. Participants' learning was restricted to the instruction provided in the classroom and those who were present in all treatment sessions were counted in the final data collection. Participants showing knowledge and ability regarding target structure under the investigation with pretest score of more than 60% were excluded from data analysis in order to avoid any confounding variable effects. Teachers participating in this study were two female graduate students who had majored in English literature.

In order to verify homogeneity of the participants in terms of English proficiency level, Nelson English language test 200 A, designed for the intermediate level and adapted from Fowler and Coe (1976), was administered to all participants of the study 2 weeks prior to the study. The results of the test are given in Table1.

Table 1 Descriptive Statistics for Proficiency Test ($n=28$)

Group	Minimum	Maximum	M	SD
G1	28	46	37	5.92
G2	26	46	37.4	6.42

Note. G1: PI group, G2: GT group

As can be seen in the table, the mean scores of the groups vary from 37 to 37.5 which is a negligible difference so that they are considered of the same proficiency level.

3. Target grammar feature

The grammatical feature of CAUSATIVE CONSTRUCTION was selected for a number of reasons. The main pedagogic rationale behind selecting this grammatical target is that one of the grammatical structures that may be difficult for high intermediate learners is causative construction which describes someone who is caused to do something. Since these sentences involve two subjects, on the basis first noun strategy principal of processing instruction, students may always assign the role of agent to the first noun that they see in a sentence (Nassaji & Fotos, 2011). For example, in the sentence 'my mother had me wash the dishes' the tendency would be to interpret it as my 'mother', and not 'I' who washed the dishes. Consequently, they may have problem in interpreting the sentences accurately. Secondly, English causative structure is among the most problematic constructions for Iranian students both to interpret and to produce. The cause of this predicament is multifaceted. First, this target feature is not very frequent in the input (e.g. in teachers' talk or textbooks) and the second is the fact that there is a marked difference between English and Persian languages regarding this grammatical structure. According to Bateni (2005) Persian verbs can be changed into causative aspect by adding infix /än/. Changing /Poshidan/ (Wear) to /poshandan/ is implemented by adding infix /än/ which is a completely morphologic process. On the other hand, in English this process is lexical and periphrastic. Lastly, from the semantic perspective, it can be argued that verbs such as 'get' and 'have' (two different causative verbs) have different meanings in their normal usages in comparison with their causative counterparts which again can be counted as the source of difficulty for Iranian EFL high intermediate learners.

It should be noted that English causative verbs which have been focused on in the present study are 'have', 'get' and 'make' in both active and passive forms. Participating teachers were consulted on the appropriateness of the instructional materials with regard to both grammatical features and lexical items used in them to make sure that learners don't have any comprehension difficulty while working on them. Before the instruction, a two-day workshop was held at the research site for teachers participating in the study. In this workshop instructors were given detailed explanation on the target structure, on how to implement treatments systematically. Besides, the teachers were briefed on the rationale of the PI and DG. For instance, the PI's instructor was strongly compelled to discourage participating students not to produce target language form during PI activities and by so doing the principle of PI was taken into account.

4. Instructional materials

A Processing instruction materials: PI material is often typified by three components (Farley, 2005; VanPatten, 1993, 1996, 2012; Wong, 2004b): (1) metalinguistic instruction directed at introducing the causative form explicitly and succinctly; (2) working on the counterproductive and inefficient input processing strategy (i.e. the first noun strategy in the present study) that learners usually use in the interpreting or producing causative sentences and (3) structured input activities (SI) which force the learners to create form-function mappings. The activities were developed on the basis of guidelines suggested for the construction of the structured input activities in VanPatten (1995) and VanPatten & Sanz (1995). Wong (2004b) categorized SI into two groups: referential and affective. In referential activities learners should pay attention to form in order to get meaning. These activities have all-or-nothing nature in that there is only one right answer for each. These activities are designed to push the students away from the first noun strategy, so instructor can investigate whether the students created correct form-function mapping or not. On the other hand, affective activities, which are exemplar in nature, don't have right or wrong answer and subsequently they elicit learner's beliefs, opinions, values and knowledge. This characteristic enables learners to express an opinion or belief freely as they are engaged in processing information rather than producing in context resembling a real world situation. In this study there are totally 8 referential and affective structured input activities regarding causative verbs. Totally, processing instruction was focused on for two sessions of one hour. (See Appendix A for some samples).

B Dictogloss Task: As was mentioned in the former part there were four steps in the DG task in which two stories were covered. In the first step, the teacher introduced the main idea of the story and she gave copies of it to the students. This preparation phase also included a warm-up discussion related to the passage during which the teacher introduced and explained new words in the story. Designation of the students in DG group to the sub-groups was also done in this stage before they started to do the task. In the dictation stage, the teacher read the passage two times at the normal speed. First, the students listened to the text very carefully and at the second time they listened and wrote key points and ideas related to the passage. In the third stage which was known as the reconstruction stage, students in sub-groups worked collaboratively and they reconstructed the text as accurately as they could by using the notes they took at the former stage. They were explicitly required to use at least four causative verbs in order to raise their consciousness toward the target feature which might be unattended. Teacher had the role of a monitor at this stage by providing some corrective feedbacks. Finally in the analysis and correction stage the reconstructed text was analyzed and contrasted with the original text. In this step, they shared and discussed the choices they made in order to be aware of other students' choices while the teacher raised the students' awareness regarding their grammatical problems and how to correct them.

Two 50-minute sessions were devoted to DG implementation. In the first session a concise introduction to the DG task was given to the students and the first story was covered. The second DG activity was worked on in the second story on the following day.

5. Assessment package

In order to assess the effects of instructions (PI and DG), three parallel tests, Test A, B, C, were used: A as a pretest, B as an immediate posttest and C as a delayed posttest. These versions differed in terms of the order of questions, names of subjects and objects in each sentence, and the relative number and type of causative verbs plus their distributions and the content (see Appendix B for the posttests). These tests were given to evaluate the participants' ability to comprehend and produce causative verbs and, in turn, each test is in two parts: an interpretation and a production part. Assessment consisted of four parts which the first two were INTERPRETIVE and the last two were PRODUCTIVE and they were scored separately. In the first part i.e. the interpretive part; the students were given a task consisted of 10 aural sentences, and the length of each sentence varied between 7 and 10 words. In this task the students were asked to listen to each sentence and choose the correct interpretation that was best fitted to it. The two given interpretations contained the same action, and they were different with regard to the subject and object sequences. The second task was a pictorial sentence completion task in which the students had to complete each sentence related to each picture. Wholly, 15 sentences plus their pictures were given in this task.

In the first task of the production section, learners were required to translate ten sentences containing causative verbs into Persian. In the second production task, the students were given 10 scrambled sentences and they had to unscramble each. For example; this scrambled sentence “car/makes/fixed/peter” is descrambled into “Peter makes the car repaired”.

Reliability indexes were calculated for both interpretation and production sections. Cronbach’s alpha as the index of internal consistency for the interpretation tasks of immediate and delayed posttest were .77 and .80 which can be considered high. The values of Cronbach’s alpha for the production tasks of immediate and delayed posttests were .70 and .66 respectively which can be deemed adequate for the production tasks. It should be mentioned that calculation of Cronbach’s alpha was not deemed necessary at the time of pretest because of the trifling variability of participants’ performance which is vividly shown in Table 1 and Table 2 in the results section. In order to implementing content validation of the test and checking the adequacy, appropriateness, and efficiency of the test instructions, pictures, timing, wording, and scoring procedures, items of pretest, immediate and delayed posttests were reviewed by a group of Iranian university faculty members and three high school teachers.

6. Procedure

This study employed a quasi-experimental design with a pretest, treatment, posttest, and delayed posttest. During the week prior to the start of instruction, participants completed the pretest. The instructional treatments took two 1 hour-sessions in PI group and two 50-minute sessions in DG group over two consecutive days. The timing of posttest, Test B, was immediate (Li, 2010) with its administration three days after the instruction. The delayed posttest timing was long (Li, 2010) and it was given one month after the immediate posttest. It should be said that each test was taken approximately 40 minutes.

Instruction was provided during regular class time and the researchers observed two parallel classes in order to control the teacher variable and to avoid the possible threats to the internal validity of the study.

7. Data analysis

The same scoring rubric was followed regarding all the tests. Interpretation part which had two tasks was composed of 25 items and each correct item was counted as one point. So the final score for the interpretive section was 25. With regard to the two tasks evaluating the production of causative constructions, a more complex rubric was utilized in comparison with the interpretation part. In the sentence translation task each completely correct translation regarding the causative verb and tense was assigned 2 points, sentences containing wrong position of the causative verb and sentences which have wrong object position were given 1. The rationale behind using this analytical rubric is to show the intermediate effect of instruction (VanPatten & Caderino, 1993; Larsen-Freeman, 1997) which require that student should be given a partial score when they don’t provide a completely target-like form. This rubric was followed precisely in the sentence descrambling task and the total score for both were 20 points. Each production task was scored two times by two raters. The correlation between two raters in the translation task and sentence descrambling task was 0.93 and 0.96 respectively.

8. Results

8.1 Results of interpretation part

To ensure that no differences existed between groups before treatment sessions, an independent sample t-test was used. The results demonstrated that there were no significant preexisting differences between two groups at the time of pretest in the interpretation part ($t(54) = 2.2, p > .05$). It indicated (see Table 2) that the two groups were similar regarding their abilities to comprehend causative constructions before instruction, so if any differences were detected in the posttests, they would be attributed to the differences in kind of treatment rather than individual differences. To answer research question one which asked about the effectiveness of PI and DG on the interpretation of causative constructions, an independent sample t-test was run on the two groups’ scores in the immediate posttest. The result of Table 2 as long as Figure 1 revealed that there was a significant difference in two group’s performance, $t(54) = 5.45, p < .05$. It further came to view that DG group overtook PI group in interpretation part of the immediate posttest.

Table 2. Descriptive statistics for the interpretation section (N=28)

Group	Pretest		Immediate posttest		Delayed posttest	
	M	SD	M	SD	M	SD
G1	8.6	0.34	16.40	2.89	15.33	2.14
G2	7.4	1.57	19.80	1.98	12.30	1.33

Note. G1: PI group, G2: DG group

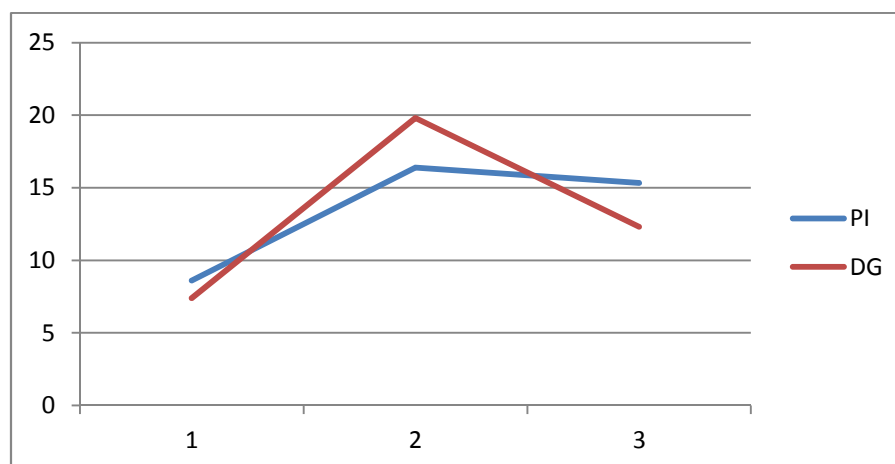


Figure 1. Groups' performances across pretest, immediate and delayed posttests for the interpretation section

The second research question was directed at examining whether or not the possible benefit of one type of instruction over the other in helping interpretation of English causatives was maintained over time. An independent sample t-test conducted on two groups of scores in the interpretation part of the delayed posttest showed that PI group outperformed DG group, $t(54) = 5.22, p < .05$. This, along with Table 2 illustrated that the significant difference found between two groups at the time of immediate posttest were reversed one month later in the delayed posttest and DG didn't have a durability effect on the interpretation of causatives.

To investigate differential individual instructional effects of PI and DG on interpretation of causative constructions, paired sample t-test was run on the students' score in the pretest and immediate posttest: $t(27) = 7.25, p < .05$ for PI group, and $t(27) = 11.25, p < .05$ for the DG group. Figure 1 as long as the above mentioned results signposted clearly the fact that both groups improved significantly from pretest to the immediate posttest. The same paired sample t-test was conducted on students' scores in the pretest and the delayed posttest. It was found that again both groups' performances were significantly different in comparison with theirs on the pretest: $t(27) = 6.45, p < .05$ for PI group, and $t(27) = 5.46, p < .05$ for DG group. Further analysis of Table 2 and Figure 1 shed light on the fact DG group retrograded from the immediate to the delayed posttest but the PI group advanced during the same period.

8.2 Results of production part

In order to determine the possible effects of two types of instruction on the way in which subjects produced sentences containing English causatives, raw scores of the production pretest, posttest, and follow-up test were tabulated and independent sample t-test was conducted on them. The results of t-test illustrated no statistically significant difference between groups ($t(54) = 3.2, p > .05$) before the beginning of the instructional period. It implied that two groups were equivalent at the outset of the study, and any comparative effect would be attributed to the differences in the kind of treatment rather than individual differences.

The third research question explored the relative effectiveness of PI and DG on the students' ability in producing causative constructions. The means in Table 3 along with Figure 2 put on the view that the advances of group from pretest to the immediate posttest were not equal. Independent sample t-test was used on the groups' scores in the production part of the immediate posttest. The results gleaned from the statistical analysis showed that there was a significant difference in students' abilities regarding producing causative constructions immediately after treatment sessions, $t(54) = 4.4, p < .05$.

The last research question investigated whether any possible advantages of one type of instruction in helping the learners producing causatives over another was kept in the long run. Having conducted an independent sample t-test on students' scores in the production section of the delayed posttests, it was found that there was a statistically significant difference between two groups, $t(54) = 3.6, p < .05$. Similar to the immediate posttest, as can be seen in Table 3, in this situation again DG group overtook PI group which indicates that DG has a long term benefit regarding production of causative sentences. As it is shown in Figure 2, there exists trivial attrition in scores of DG group at the time of the delayed posttest.

Paired sample t-tests conducted on the two groups' scores on pretest and the immediate posttest yield an upward trend. It was found that both groups had significant advances from the pretest to the immediate posttest: $t(27) = 13.26, p < .05$ for the PI group, and $t(27) = 15.61, p < .05$ for DG group. Conduction another paired sample t-tests on the students' score in the production sections of the pretests and the delayed posttests illustrated that learner's scores in the delayed posttest were significantly higher than the pretest scores: $t(27) = 9.26, p < .05$ for the PI group, and $t(27) = 11.61, p < .05$ for DG group. At this stage, based on Figure 2, it can be stated that both groups advanced significantly after the treatment sessions in production section of the posttests

and the effects were maintained after 4 weeks.

Table 3. Descriptive statistics for production part (N=28)

Group	Pretest		Immediate posttest		Delayed posttest	
	M	SD	M	SD	M	SD
G1	9.3	0.54	27.40	4.73	22.40	3.72
G2	8.4	1.97	36.21	3.91	35.30	4.22

Note. G1: PI group, G2: DG group

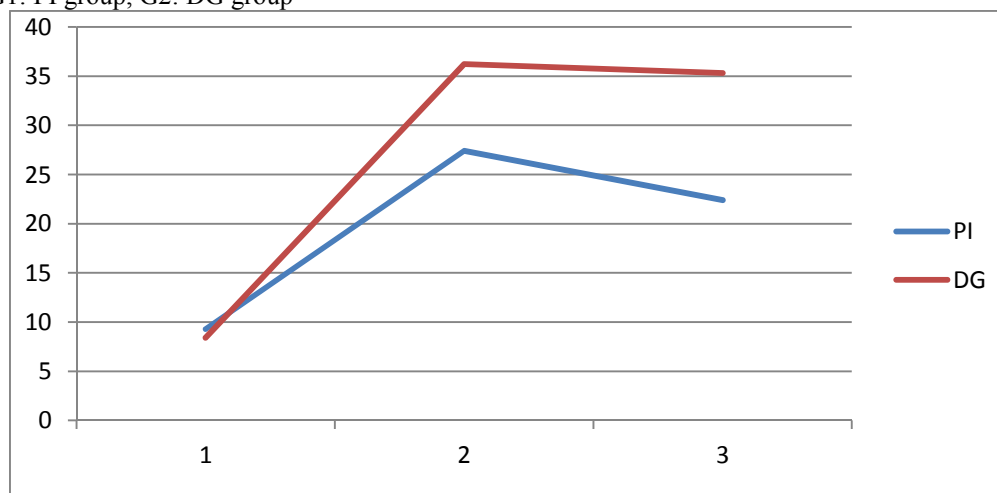


Figure 2 Groups' performances across pretest, immediate and delayed posttests for the production section

9. Discussion

The first research question of the current study was formulated to explore the effects of PI, a particular instructed focus of form technique and DG which is an output prompting task. The result of the statistical analysis illustrated that in interpretation section of the immediate posttest DG group outperformed PI group. It is in contrast with Benati (2001); Benati & Lee (2008); VanPatten (2002a, 2008); VanPatten & Ulundag (2011). VanPatten & Ulundag (2011) stated that PI helped learners better than any other instructions in doing interpretive tasks. It is in line with Izumi (2002), and Swain (1998) who asserted that output is necessary in order to cause change in learners' underlying knowledge. The results are also corroborated by Qin's (2008) study. Qin (2008) argued that the claimed benefit of PI should be taken into account with the consciousness if the group who received an output-based activity improved in the interpretation part of the posttests. It can be said that it is natural to see DG group outperformed in the production part of the posttests, but it is very interesting that DG group had the significant advances in the interpretation section in spite of the fact that they were instructed only in the production of the target structure in the treatment sessions. One possible justification of this finding is that the students in DG group worked on the comprehension skill at least in 3 stages of dictation, reconstruction and the analysis with correction stage. Swain (1993) distinguished three functions of output in L2 acquisition: (1) a noticing (or triggering) function; (2) a hypothesis testing function; and (3) a metalinguistic function. It can be asserted that producing output in DG helped the learners in better noticing the elements of causative construction. The second research question investigated the potential long term effects of PI and DG in interpretation of causatives. Results shed light on an important fact that posttest timing plays a crucial role in the effectiveness of PI. The group who received PI outperformed DG group one month after the immediate posttest. It showed that the immediate effects of DG were disappeared in the delayed posttest. On the other hand, PI group was subject to the least attrition from the immediate posttest to the delayed one which signposts the fact that when nature of the instruction and the outcome measure is similar (both are interpretive types), the potential effects of instruction is better kept (Ellis, 2012).

The third research questions investigated the differential effects of PI and DG on the students' performance in the production section of the immediate posttests. A simple glance at the means of the groups over three administrations indicates that both PI and DG approach could improve the learners' ability of production of causative constructions from the pretest to the immediate posttest. Further analysis revealed that in the immediate posttest DG outperformed PI. A lingering question in current mainstream of PI research is that to what extent the effects of PI can be transferred to the non-PI task (VanPatten & Ulundag, 2011). The results of this study imply that principally the PI's main agenda is to change the way students processing input, so it is inevitable that much gain is seen in the interpretation tasks and subsequently DG group outperformed PI in the

production part of the first immediate posttest. But it can be said that PI converted some of the input the students received on English causatives to intake and it had positive effects on students' production immediately after treatment sessions. In the production delayed posttests, PI group was subject to the more attrition in comparison with DG group, which indicated the superiority of DG group over PI group. This result is not in line with Sanz and Morgan's (2000) study in which the effects of PI were investigated on students' performance in video narration task. The superiority of DG group over PI group can be traced back to production nature of dictogloss in which the students were pushed to produce output during the collaborative dialogue (Swain, 2000) or instructional conversation (Donato, 2000) with their partners. Swain (2000) introduced collaborative dialogue as a dialogue in which speakers participated in problem solving and knowledge construction. This construction of knowledge happened during students' collaboration in dictogloss during which they used L2 to jointly address the problems and to respond to what was said while consciously attending to what aroused in the produced utterances.

Weighing all the things up, it can be concluded that care must be taken in order to accept the potential benefits of PI. It is in line with what was found in this study. It was shown that in interpretation section of the immediate posttest, shortly after the instructional sessions, DG group who received the production based instruction outperformed PI group, the group who received the receptive focused instruction. Having looked at descriptive statistics, it becomes clear that both PI and DG contribute to the learners' interlanguage development regarding causative constructions from the pretest to the immediate posttests. With regard to the long term effects of these two instructions it can be concluded that a group who received instruction compatible with the very section of the delayed posttest outperformed the other with the least amount of attrition.

10. Conclusion

The results of the study presented in this article have made a number of contributions to the current debate on the effects of PI, an input-oriented instruction, in comparison with DG which is an output based type of instruction. The first and the main finding of this study is that reaffirmation of the positive effects of PI on the receptive ability of the learners regarding one target structure should be represented with caution. The results of this study made clear that in the short time interval DG group outperformed PI group, but in the long run PI group showed itself as the superior group in the interpretive section of the delayed posttest. This finding is corroborated by the colossal literature regarding the potential benefits of PI on learners' ability in creating form-function mapping of a target feature (Benati, 2005; Benati & Lee, 2008; VanPatten, 2008; VanPatten & Oikennon, 1996). Secondly, on the contrary to the common belief that language teaching input practice should precede output practice (Benati, 2005; Krashen, 1983; VanPatten, 2004), this study asserts that with regard to the target structure which is completely new for learners, some output practices such as dictogloss task can be successful, a fact which was seen in the interpretive section of the immediate posttest. The third point which should be considered is that even though PI has some effects on learners' improvement in the productive section from pretest to the immediate posttest and to the delayed one; this advance can't be counted on as the statistically significant one. The students of the DG group in production part of both posttests outperformed PI's. This finding rejected what was found in VanPatten & Ulundag, (2011) which stated that PI had a significant effect on the students' performance in the text reconstruction task.

Despite the findings of the present research, several limitations exist. The first one is that no control group was considered. Further studies are needed with the control group in order to have a more valid design and to check whether the instructions (PI or DG) or any other extraneous variables play a role in learners' interlanguage development. Another limitation of this study is related to implementing DG task. Collaborative interactions among students in DG group were not recorded in order to check whether the sole production or any other factors such as rule explanation by students themselves caused the better performance in the majority of posttests. Finally the participants of this study were adults with different ages from 18 to 50; in other words, age was not controlled. Further research is needed to be implemented with the variable of age controlled to see if PI as a specific type of form-focused instruction has any differential effects regarding young learners or children. Furthermore, worthy pursuit in this regard is to investigate the differential effects of PI and other output discourse based techniques on different genders (male or female). The last point which should be mentioned is that proponents of Processing Instruction (VanPatten, 2004) assert that learners benefit most from both referential and affective structured input activities (Henshaw, 2012). Further research should be done to investigate the differential effects of different affective and referential activities.

11. References

- Bateni, M. (2002). *Descriptive study of Persian grammar*. Amir Kabir Publication, Tehran, Iran.
Benati, A. (2000). Processing instruction: Un tipo di grammatica comunicativa per la classe di Lingua straniera. Il caso del futuro italiano. *Italica*, 77, 471–494.
Benati, A. (2001). A comparative study of the effects of processing instruction and output-based instruction on

- the acquisition of the Italian future tense. *Language Teaching Research*, 5, 95–127.
- Benati, A. (2005). The effects of processing instruction, traditional instruction and meaning out put instruction on the acquisition of the English past simple tense. *Language Teaching Research*, 9, 67–93.
- Benati, A. & Lee, J.F., (2008). Grammar acquisition and processing instruction: secondary and cumulative effects. Multilingual Matters, Bristol, UK.
- Birjandi, P., & Rahimi, J. (2009). The effects of processing instruction and output-based instruction on the interpretation and production of English causatives. *Iranian Journal of Applied Linguistics*, 12, 1-30.
- Birjandi, P., Maftoon, P., & Rahimi, J. (2011). VanPatten's processing instruction: Links to the acquisition of English passive structure by Iranian EFL learners. *European Journal of Scientific Research*, 4, 598–609.
- Cadierno, T. (1995). Formal instruction from a processing perspective: An investigation into the Spanish past tense. *The Modern Language Journal*, 79, 179–193.
- Cheng, A.C. (2002). The effects of processing instruction on the acquisition of ser and estar. *Hispania*, 85, 308–323.
- Donato, R. (2000). Sociocultural contributions to understanding the foreign and second language classroom. In J. Ellis, R. (1995). Interpretation tasks for grammar teaching. *TESOL Quarterly*, 29, 87–106.
- Ellis, R. (2002). Does form-focused instruction affect the acquisition of implicit knowledge?: A review of the research. *Studies in Second Language Acquisition*, 24, 223–236.
- Ellis, R. (2012). *Language teaching & language pedagogy*. Wiley BlackWell, London, England. London, England.
- Erlam, R. (2003). The Effects of deductive and inductive instruction on the acquisition of direct object pronouns in french as a second language. *The Modern Language Journal*, 87: 242–260.
- Farley, A. P. (2001). Authentic processing instruction and the Spanish subjunctive. *Hispania*, 84, 289–299.
- Farley, A. P. (2004). The relative effects of processing instruction and meaning-based output instruction. In B. VanPatten (Ed.), *Processing instruction: Theory, research, and commentary* (pp. 143–168). Mahwah, NJ: Erlbaum.
- Fernandez, C. (2008). Reexamining the role of explicit information in Processing Instruction. *Studies in Second Language Acquisition*, 30, 277–305.
- Henshaw, F. (2012). How effective are affective activities? Relative benefits of two types of structured input activities as part of a computer delivered lesson on the Spanish subjunctive. *Language Teaching Research*, 16(3) 393–414.
- Izumi, S. (2002). Output, input enhancement, and the noticing hypothesis: an experimental study on ESL relativization. *Studies in Second Language Acquisition*, 24, 541–577.
- Larsen-Freeman, D. (1997). Chaos/complexity science and second language acquisition. *Applied Linguistics*, 18, 141-163.
- Lee, J. (2004). On the generalizability, limits, and potential future directions of processing instruction research. In B. VanPatten (Ed.), *Processing instruction: Theory, research, and commentary* (pp. 293–309). Mahwah, NJ: Erlbaum.
- Lee, J., & VanPatten, B. (1995). *Making communicative language teaching happen*. New York: McGraw-Hill.
- Li, S. (2010). The effectiveness of corrective feedback in SLA: A meta-analysis. *Language Learning*, 60, 309–365.
- Nassaji, H., & Fotos, S. (2011). *Teaching grammar in second language classrooms*. London: Routledge Publication.
- Norris, J., & Ortega, L. (2000). Effectiveness of L2 instruction: A research synthesis and quantitative meta-analysis. *Language Learning*, 50, 417–528.
- Qin, J. (2008). The effect of processing instruction and dictogloss tasks on the acquisition of English passive voice. *Language Teaching Research*, 12, 61–82.
- Sanz, C., Morgan-Short, K. (2004). Positive evidence vs. explicit rule presentation and explicit negative feedback: a computer assisted study. *Language Learning*, 54, 35–78.
- Schmidt, R. (1995). Consciousness and foreign language learning: A tutorial on the role of attention and awareness in language learning. In R. Schmidt (Ed.), *Attention and awareness in foreign language learning* (pp. 1–63). Honolulu, HI: University of Hawaii Press.
- Swain, M. (1985). Communicative competence: Some rules of comprehensible input and comprehensible output in its development. In S. Gass, & C. Madden (Eds.), *Input in second language acquisition* (pp. 235–53). Rowley, MA: Newbury House.
- Swain, M. (1993). The output hypothesis: Just speaking and writing aren't enough. *Canadian Modern Language Review*, 50, 158–64.
- Swain, M. (1998). Focus on form through conscious reflection. In: Doughty, C., Williams, J. (Eds.), *Focus on form in classroom second language acquisition*. Cambridge University Press, Cambridge.
- Swain, M. (2000). The output hypothesis and beyond: Mediating acquisition through collaborative dialogue. In J.

- Toth, P. D. (2006). Processing instruction and a role for output in second language acquisition, *Language learning*, 56 (2), 319-385.
- VanPatten, B. (1993). Grammar teaching for the acquisition-rich classroom. *Foreign Language Annals*, 26, 435–450.
- VanPatten, B. (1996). *Input processing and grammar instruction: Theory and research*. Norwood NJ: Ablex.
- VanPatten, B. (2002a). Processing instruction: An update. *Language Learning*, 52, 755–803.
- VanPatten, B. (2002b). Processing instruction, prior awareness, and the nature of second language acquisition: A (partial) response to Batstone. *Language Awareness*, 11, 240–258.
- VanPatten, B. (2003). *From input to output: A teacher's guide to second language acquisition*. New York: McGraw Hill.
- VanPatten, B. (2004). Input and output in establishing form-meaning connections. In: VanPatten, B., Williams, J., Rott, S., Overstreet, M. (Eds.), *Form-meaning connections in second language acquisition*. Lawrence Erlbaum Associates, Mahwah NJ.
- VanPatten, B. (2008). *Processing instruction: Theory, research, and commentary*. Mahwah, NJ: Erlbaum.
- VanPatten, B. (2012). Input processing. In S. M. Gass & A. Mackey (Eds.), *The handbook of second language acquisition* (pp. 268–281). New York: Routledge.
- VanPatten, B., & Borst, S. (2012). The roles of explicit information and grammatical sensitivity in processing instruction: Nominative-accusative case marking and word order in German L2. *Foreign Language Annals*, 45, 92-109.
- VanPatten, B., & Cadierno, T. (1993). Explicit instruction and input processing, *Studies In Second Language Acquisition*, 15, 225–259.
- VanPatten, B., & Oikkenon, S. (1996). Explanation vs. structured input in processing instruction. *Studies in Second Language Acquisition*, 18, 495–510.
- VanPatten, B., & Sanz, C. (1995). From input to output: Processing instruction and communicative tasks. In R. R. Weber (Eds.), *Second language acquisition theory and pedagogy* (pp.169–185). Mahwah, NJ: Erlbaum.
- VanPatten, B. & Uludag, O. (2011). Transfer of training and processing instruction: From input to output. *System*, 39(1), 1-10.
- Wajnryb, R. (1990). *Grammar dictation*. Oxford University Press.
- Wong, W. (2004a). Processing instruction in French: The roles of explicit information and structured input. In B. VanPatten (Ed.), *Processing instruction: Theory, research, and commentary* (pp. 187–205). Mahwah, NJ: Erlbaum.
- Wong, W. (2004b). The nature of processing instruction. In B. VanPatten (Ed.), *Processing instruction: Theory, research, and commentary* (pp. 143–168). Mahwah, NJ: Erlbaum.

APPENDIX A

Example of Referential Activity in PI

In the following sentences underline the main verb, subject and object. Put MV for the main verb, S for subject and O for object.

- 1- They had John arrived early.
- 2- My mother didn't have enough money to buy that car.
- 3- I had my hair cut last Saturday.
- 4- She had her children cook dinner for her.
- 5- She didn't get the money last yesterday.

Examples of Affective Activity in PI

Teacher's script:

A- Below you see some statements. Decide whether you like or dislike them.

- 1- Teachers should have students do their homework at school.

A) Like	B) Dislike
---------	------------
- 2- Students make their parents happy by getting good grades.

A) Like	B) Dislike
---------	------------
- 3- Having money is better than having the knowledge.

A) Like	B) Dislike
---------	------------

Teacher's script:

B – In pairs write 4 sentences about what your parents get you to do at home. When you are done share it with other pairs.

APPENDIX B

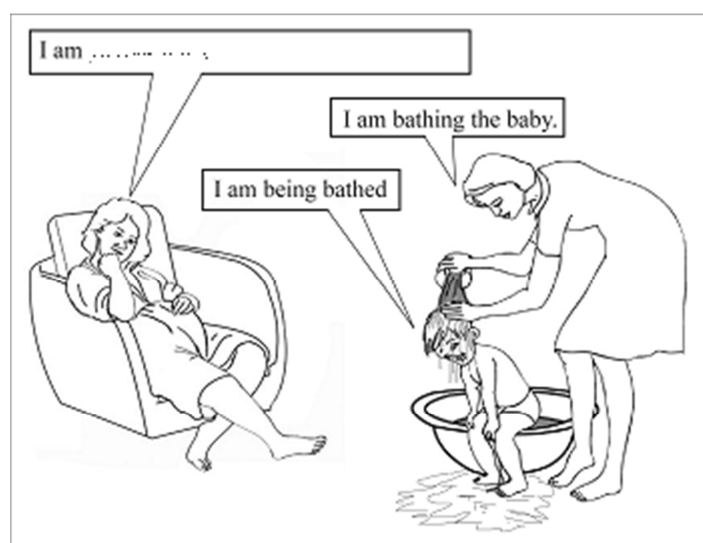
*Samples of Interpretation Test Items

You will hear some sentences which contain the causative constructions. Listen carefully and choose the correct interpretation of the sentence. Circle a or b. (The students are expected to answer the following as the teacher reads Activity A: Teacher's Script below. This will be carried out when the teacher reads the sentences given below.)

1. a) I washed the dishes.
b) My mother washed the dishes.
2. a) The president returned to his country
b) The vice president returned to his country.
3. a) Children cleaned grandmother's house .
b) The grandmother cleaned her house.
4. a) The professor wrote an essay.
b) The professor wrote an essay.
5. a) The painter painted my house last year.
b) I painted my house last year.

PART 1:

B. Look at each picture. Use the cue word/s given for each picture and complete the sentence in a way to describe it in the best way. Add your own words if required.



1-My baby should be bathed so I him. (Wash/Have)

*Samples of production Test Items

PART 1:

You are given 10 sentences in Farsi. You should translate them in English.

- 1- دادم ماشین را مکانیک تعمیر کنند.
- 2- خانه خیلی کثیف است باید بدهم نقاش رنگش کند.
- 3- غذا سرد بود دادم مادرم گرمش کند.
- 4- سعید تکالیفش را انجام داد.

PART 2:

Reword each sentence into the correct order.

- 1- made Jack rewrite the teacher the composition
- 2- class teacher stay after to discuss my essay the me had
- 3- the to repair got the elevator finally we mechanic

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